DOCUMENT RESUME

ED 455 635 EC 308 523

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TITLE Are General Educators Prepared To Teach Students with Physical Disabilities?
PUB DATE 2001-04-20
NOTE 27p.; Paper presented at the Annual Convention of the Council for Exceptional Children (Kansas City, MO, April 18-21, 2001).
PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Assistive Devices (for Disabled); Elementary Secondary Education; *Inclusive Schools; *Knowledge Base for Teaching; *Physical Disabilities; Self Evaluation (Individuals); Social Development; Student Characteristics; *Student Needs; *Teacher Competencies; Teacher Education Programs; Teacher Surveys; Teachers

ABSTRACT

This paper discusses the outcomes of a study that investigated the knowledge base and professional readiness of 50 regular education teachers for the inclusion of learners who have physical disabilities. Members of the sample were regular elementary and secondary teachers who were enrolled in a graduate teacher education program at a private university. Findings indicate: (1) 50 percent of the teachers reported that they do not feel competent and adequately prepared to include students with physical disabilities in their classrooms; (2) 94 percent of the teachers believed that they need training in assistive and adaptive equipment for educating students with physical disabilities in their classrooms; (3) 66 percent of the regular education teachers had some knowledge about the environmental adaptations needed by students with physical disabilities and showed awareness of the need for wide walkways and special classroom furniture for students with mobility impairments; (4) regular education teachers did not have adequate knowledge about the disability-specific characteristics and health care needs of children with physical disabilities, with 96 percent undecided about what hydrocephalus is; and (5) 72 percent of teachers showed awareness that students with physical disabilities need help in creating and maintaining friendships. (Contains 14 references and 14 figures.) (CR)

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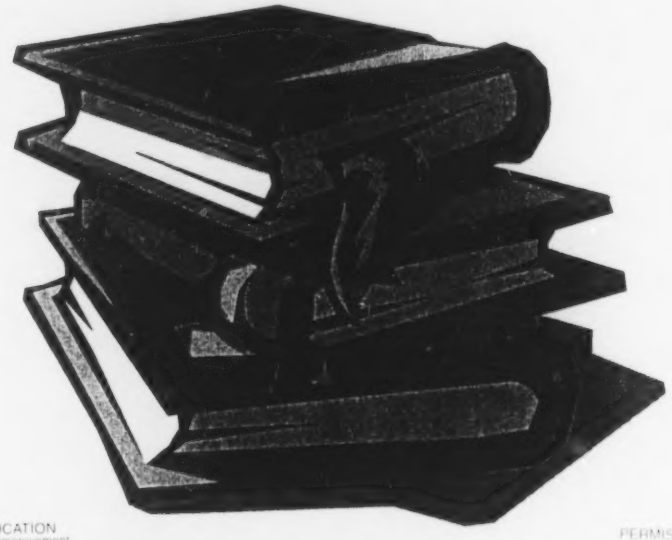

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Presented at the Annual Convention of Council for Exceptional Children
Kansas City, MO
April 20, 2001

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Are General Educators Prepared to Teach Students with Physical Disabilities?

Abstract

This presentation reports the findings of a study that investigated the knowledge base and professional readiness of 50 regular education teachers for the inclusion of learners who have physical disabilities. Members of the sample were regular elementary and secondary teachers. They were enrolled in a graduate program of a private university. Findings indicate the in-service training needs of regular elementary and secondary teachers as they relate to learners who are physically disabled.

Are General Educators Prepared to Teach Students with Physical Disabilities?

The schools across the nation are moving towards the inclusion of students with disabilities in the regular classroom, including those who have severe physical challenges. The supporters of inclusion movement draw their impetus from the Least Restrictive Environment (LRE) provision of Individuals with Disabilities Education Act (PL 105-17), formerly known as Education for All Handicapped Children Act of 1975 (PL 94-142). The LRE provision requires schools to educate students with disabilities with their non-disabled peers to the maximum extent possible. It strongly promotes their placement in the regular education classroom. However, the LRE provision does not mandate that all students with disabilities, regardless of the nature and severity of their limitations be placed in the regular classroom (Kirk, Gallagher, & Anastasiow, 2000).

Despite the very obvious intent of the LRE, students with all types and levels of disabilities are being placed in the regular classroom. Supporters of regular education initiative (Will, 1986; Reynolds,Wang & Wallberg, 1987; Stainback & Stainback, 1984) believe that inclusion is a civil rights movement. Although, there is not sufficient empirical evidence to conclude that the needs of all children can be met in the regular classroom, they demand a merger of special and regular education (Vallecorsa, deBettencourt, & Zigmnod, 2000).

Furthermore, there is anecdotal evidence that suggests that regular education teachers are not fully prepared for the inclusion of students with disabilities. The present study was designed to address the pressing need of current knowledge base. It aimed to collect data on the professional readiness of regular education teachers for the inclusion

of students with physical disabilities in their classrooms. The study specifically, addressed the following research questions:

1. Do regular education teachers feel competent and adequately prepared for the inclusion of students with physical disabilities in their classrooms?

2. Do regular education teachers have adequate knowledge about assistive and adaptive equipment?

3. Do regular education teachers have adequate knowledge about the environmental adaptations needed by students with physical disabilities?

4. Do regular education teachers have adequate knowledge about the disability specific characteristics and health care needs of students with physical disabilities?

5. Do regular education teachers have adequate knowledge about the social needs of students who have physical disabilities?

6. On the average, how many clock hours of in-service training do regular education teachers receive to integrate students with physical disabilities in their classrooms?

Research Methods

This section describes the setting, the sample, instrumentation, and procedures.

Setting

The present study was carried out at a private University in Western New York. The University offers graduate and undergraduate programs in teacher education. Teacher education programs prepare students for elementary, secondary, and cross-categorical special education certification. There are about 1,000 students enrolled in the School of Education. Approximately 99% of the students in the School of Education are of White background.

Sample

The sample for this study constituted of 50 regular education teachers. These teachers were enrolled in the various Graduate Teacher Education Programs at the University. Regular education teachers who were enrolled in the graduate special education program were not included in the study.

Procedure

The participants responded to a questionnaire during one of their evening class sessions. Data were collected over two days. It took 20-25 minutes of the participants' time to respond to the different items of the questionnaire.

Instrumentation

To address the research questions, a 75-item questionnaire was developed by the principal investigator. The questionnaire, "General Educators and Students with Physical Disabilities" has questions about the demographic information of the respondents. And, it has several Likert type items. The main items of the questionnaire were derived from the standards developed for beginning special education teachers of students with physical and health disabilities by the Council for Exceptional Children (CEC, 200). The items were divided into seven sections.

Results

This segment includes (1) Sample description and (2) Research questions.

Sample Description

The sample (N=50) primarily consisted of female teachers of White background. It was constituted of 92% female and 8% of male teachers of White background.

As shown in Figure 1, 98% of the teachers in the sample were certified in the area of their teaching assignment. A small minority, that is, 2% of the teachers in the sample were not certified but employed as teachers.

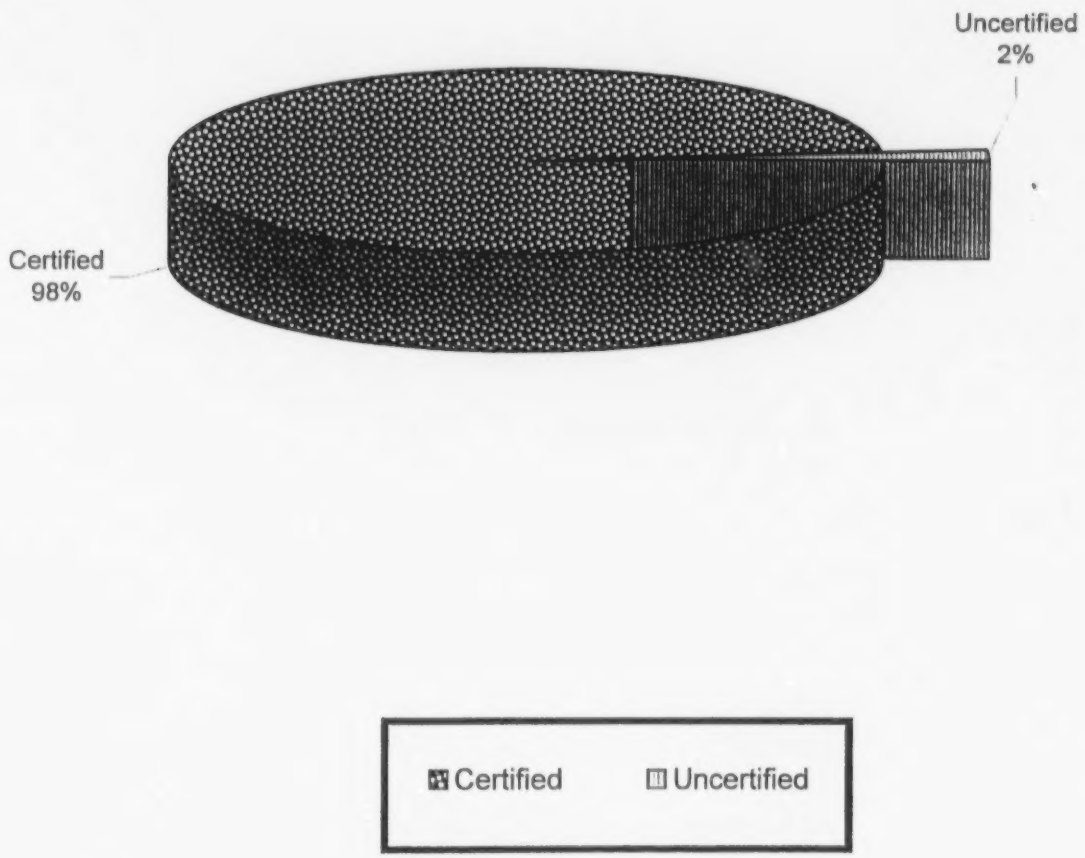

Figure 1. Certification of Regular Education Teachers

(N=50)

As for as the grade levels taught by the participating teachers are concerned, as shown in Figure 2, 68% of the sample represented elementary school teachers and 32% of the sample represented secondary school teachers.

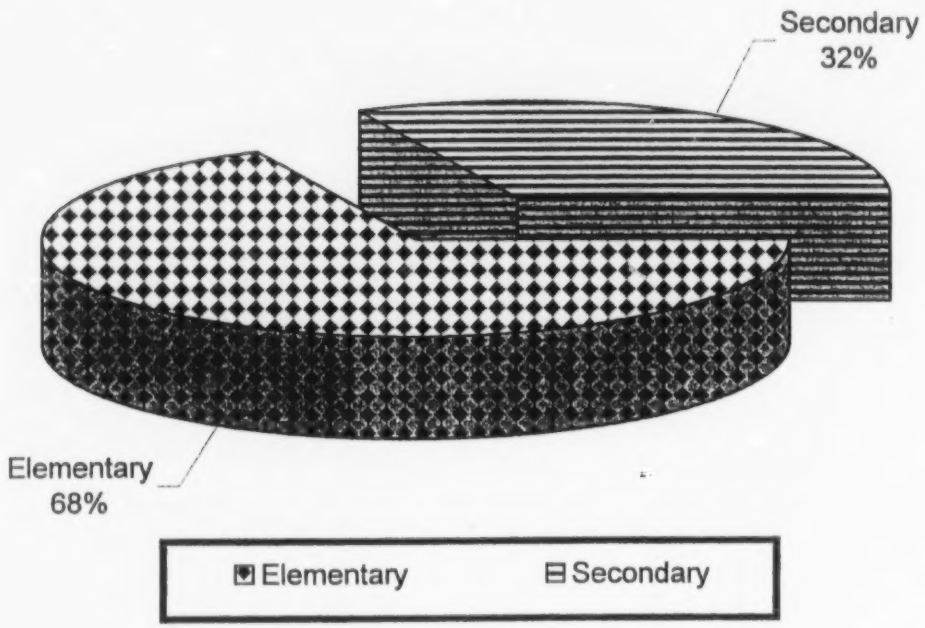

Figure 2. Grade Assignment of Regular Education Teachers (N=50)

As shown in Figure 3, the majority of the teachers, that is, 94% of the teachers had full time teaching jobs and a small proportion, that is, 6% of the teachers had part time teaching positions.

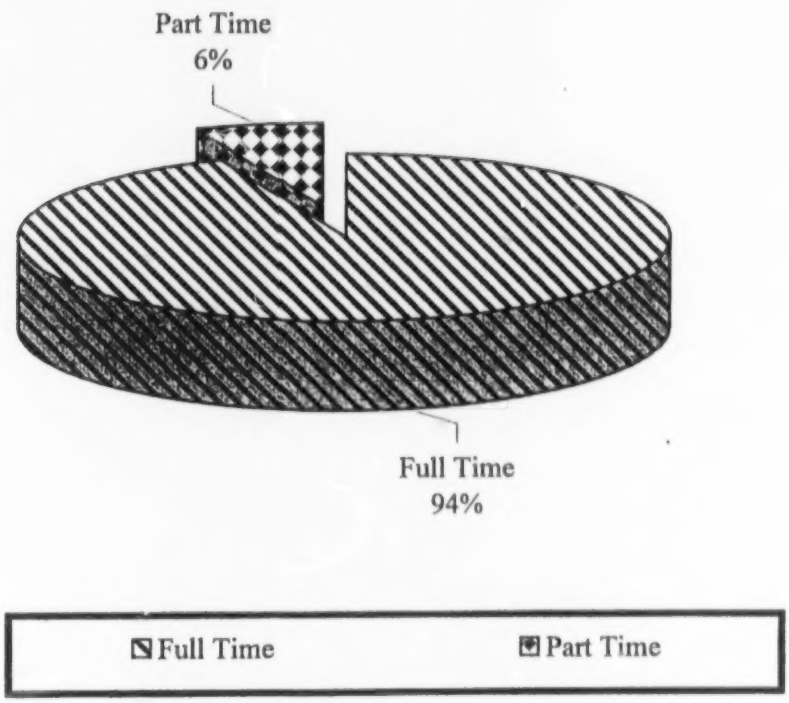

Figure 3. Teaching Assignment of Regular Education Teachers (N=50)

As far as the type of school is concerned, as shown in Figure 4, at the time of this study, 90% of the teachers were employed in public schools. And, the remaining 10% of the teachers were employed in private schools.

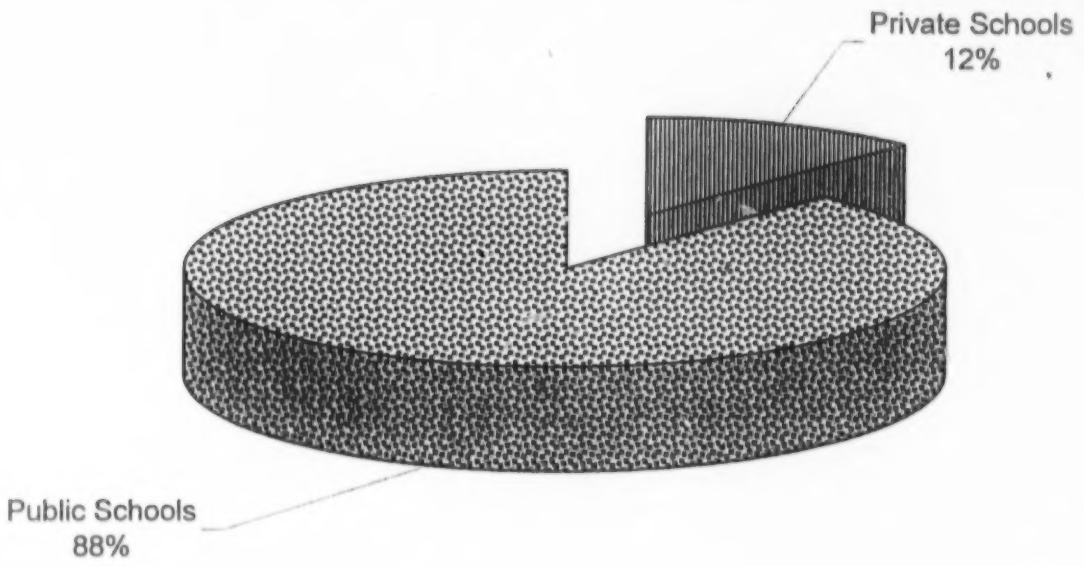

Figure 4 Type of Schools for Regular Education Teachers (N=50)

As shown in Figure 5, 40% of the teachers reported that they did co-teach sometimes. A majority of the teachers, that is, 60% of the teachers reported that they never get co-teaching opportunities in their schools. As far as the teaching experience of participating teachers is concerned, the mean teaching experience for the sample was 4.56 years ($\overline{X}$= 4.56 SD=3.2).

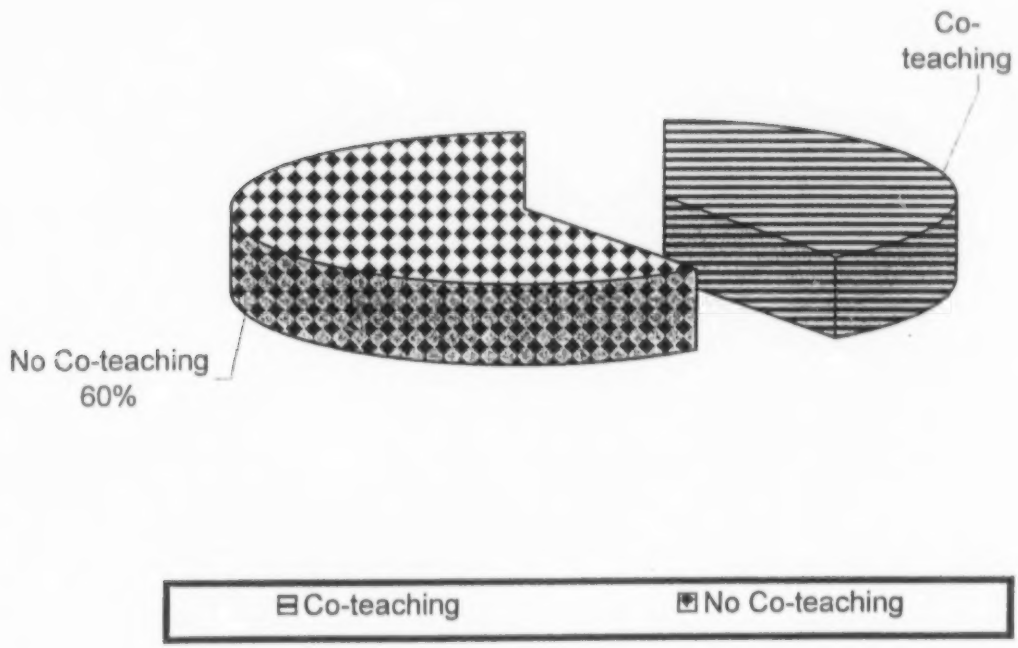

Figure 5. Co-teaching Opportunities For Regular Education Teachers

(N=50)

The members of the sample were also asked to report about the special education courses that they had taken during their undergraduate teacher-training program. As shown in Figure 6, the majority of the teachers, that is, 46% of the teachers reported that they had taken at least one course in special education during their undergraduate teacher-training program. There were 22% of the teachers who reported having taken 2 courses in special education during their undergraduate teacher training program. There were 16% of the teachers who reported that they had taken 3 or more courses in special education. And, another 16% of the teachers reported having taken none of the courses in special education during their undergraduate teacher training program.

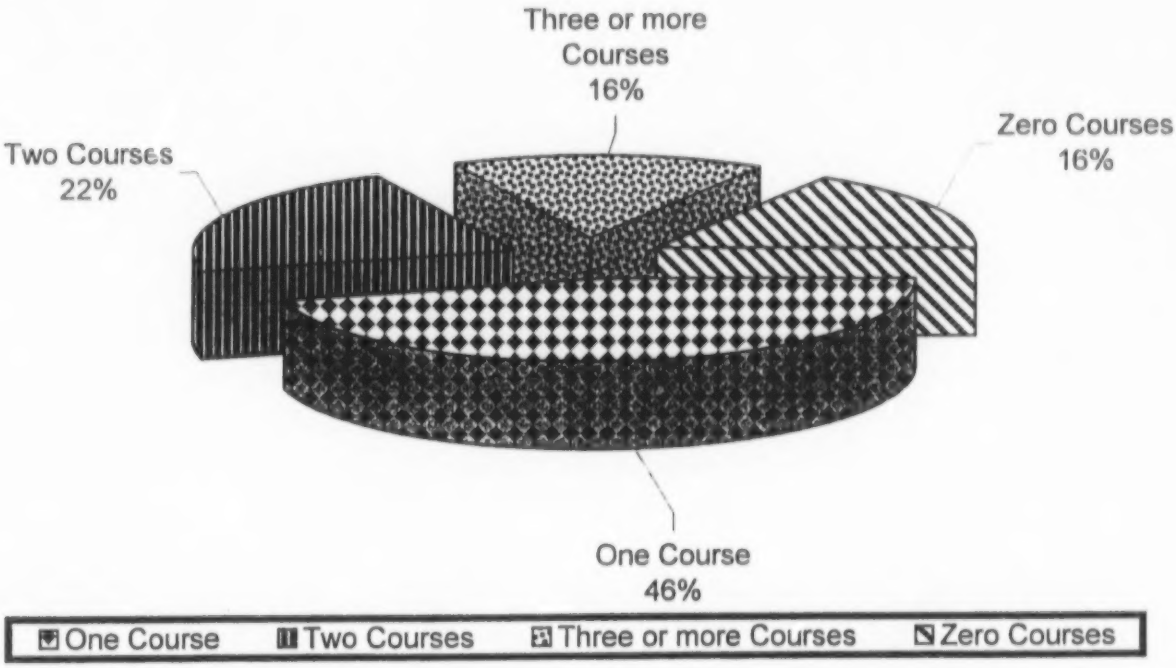

Figure 6. Number of Special Education CoursesTaken By Regular Education Teachers (N=50)

The majority of the teachers in the sample had completed their teacher training in one of the institutions of higher learning in the state of New York. As shown in Figure 7, 92% of the teachers had completed their teacher training in New York. Four percent of the teachers had completed their teacher training in Ohio. Two percent of the teachers had completed their teacher training in Oklahoma and 1% of the teachers had completed their teacher training in Maine.

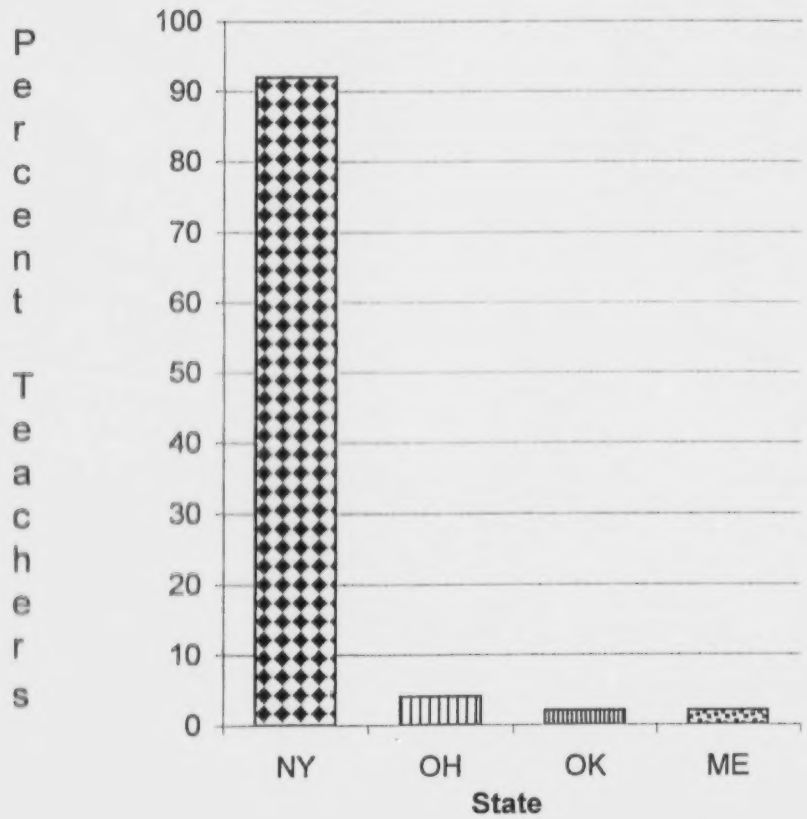

Figure 7. State of Teacher Training for Regular Education Teachers (N=50)

Research Questions

This section addresses the research questions listed earlier in this document.

Research Question 1

Do regular education teachers feel competent and adequately prepared for the inclusion of students with physical disabilities in their classrooms?

To address this question, regular education teachers' perception of their own readiness and competence as reported by them on the questionnaire, "General Education Teachers and Students with Disabilities" was computed. As shown in Figure 8, half of the teachers, that is, 50% of the teachers reported that they do not feel competent and adequately prepared to include students with physical disabilities in their classrooms. Another 10% of the teachers reported that they were undecided about their competence and readiness to include students with physical disabilities in their classrooms. And, only 40% of the regular education teachers reported that they felt competent and adequately prepared for the inclusion of students with physical disabilities in their classrooms.

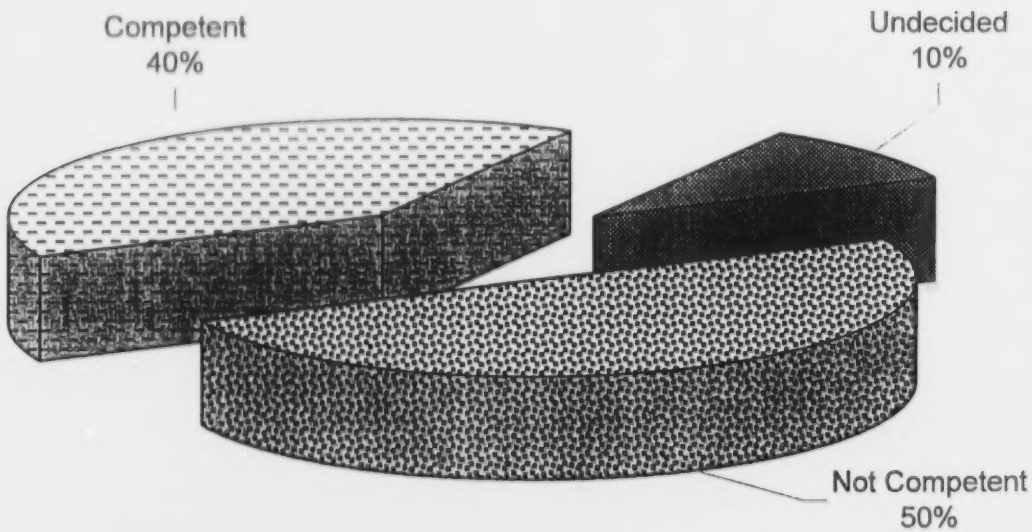

Figure 8. Regular Education Teachers' Perception of Their Own Competence and Readiness for Inclusion (N=50)

Research Question 2

Do regular education teachers have adequate knowledge about assistive and adaptive equipment? As shown in Figure 9, analysis of data indicate that 94% of the regular education teachers believe that they need training in assistive and adaptive equipment for educating students with physical disabilities in their classrooms.

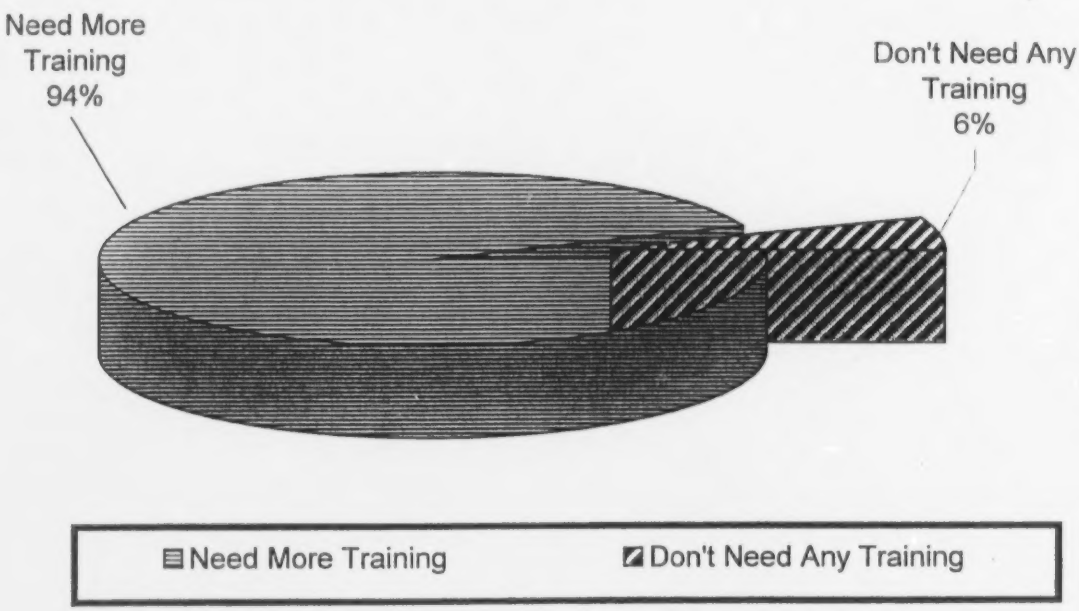

Figure 9. Regular Education Teachers' Own Opininon About Their In-service Needs in Assistive and Adaptive Equipment (N=50)

Further, as shown in Figure 10, 80% of the regular education teachers reported that they would benefit from learning about different types of wheelchairs.

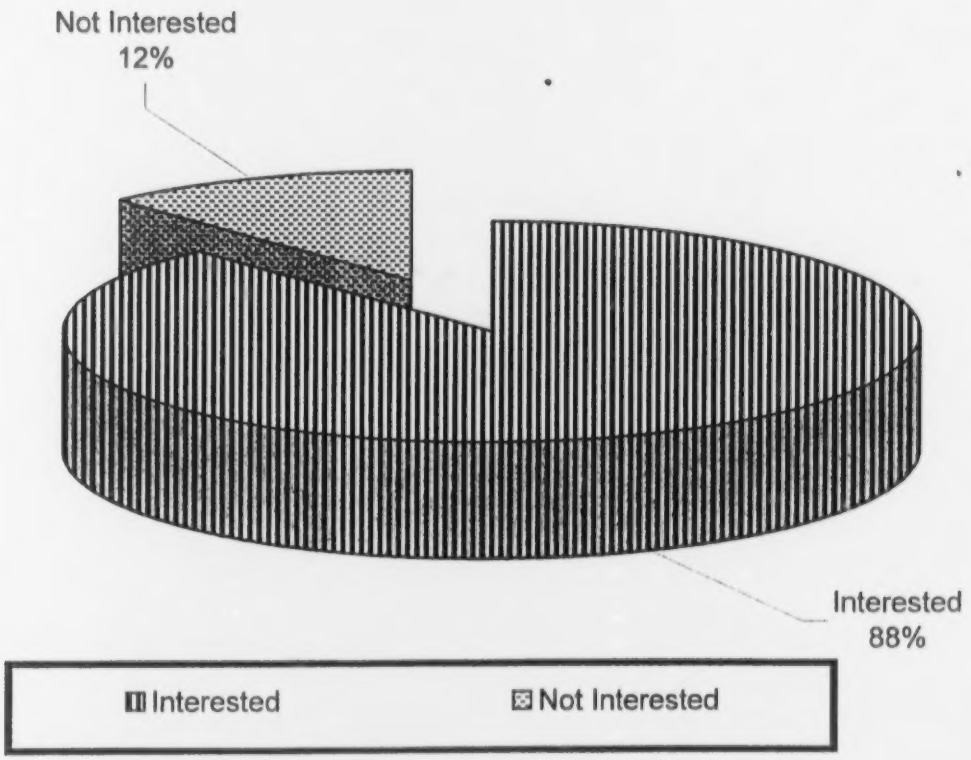

Figure10. Regular Education Teachers' Interest in Learning About Different Kinds of Wheelchairs (N=50)

As shown in Figure 11, 94% of the regular education teachers reported that they would like to know more about positioning equipment for students who have physical disabilities.

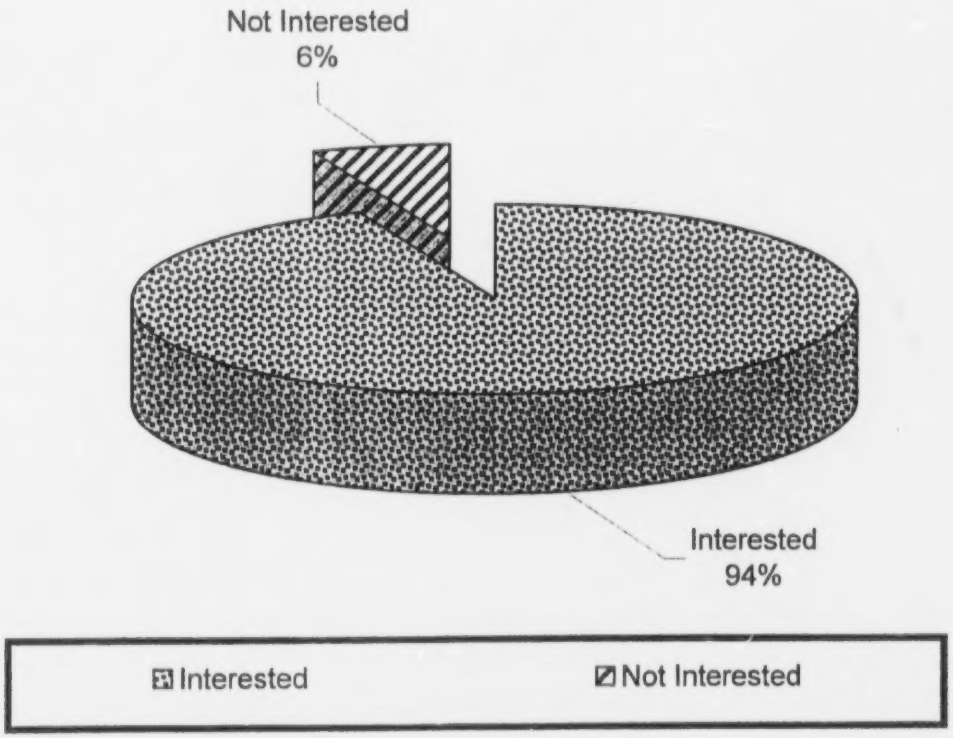

Figure 11. Regular Education Teachers' Interest in Learning About Positioning Equipment
(N=50)

And, as shown in Figure 12, 96% of the regular education teachers reported that they would benefit from learning about different communication boards

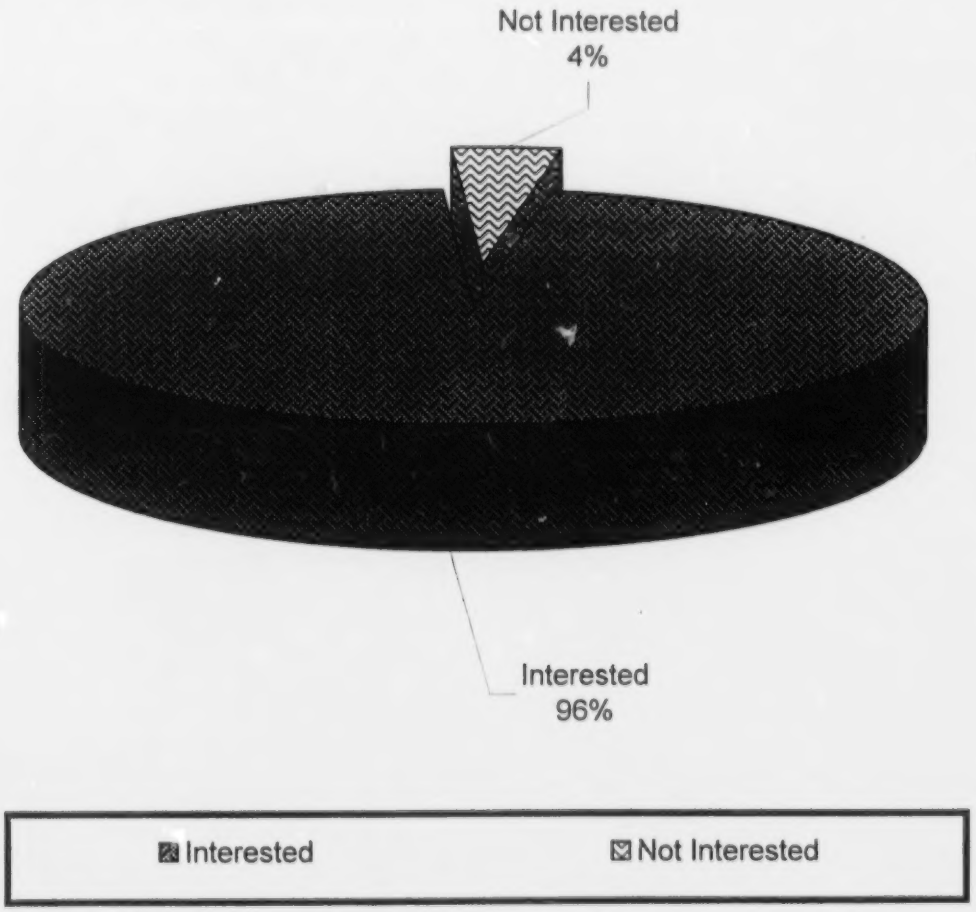

Figure12. Regular Education Teachers' Interest in Learning About Communication Boards (N=50)

Research Question 3

Do regular education teachers have adequate knowledge about the environmental adaptations needed by students with physical disabilities?

As shown in Figure 13, analysis of data indicate that 66% of the regular education teachers have some knowledge about the environmental adaptations needed by students with physical disabilities. They showed awareness of the need for wide walkways and special classroom furniture for students with mobility impairments.

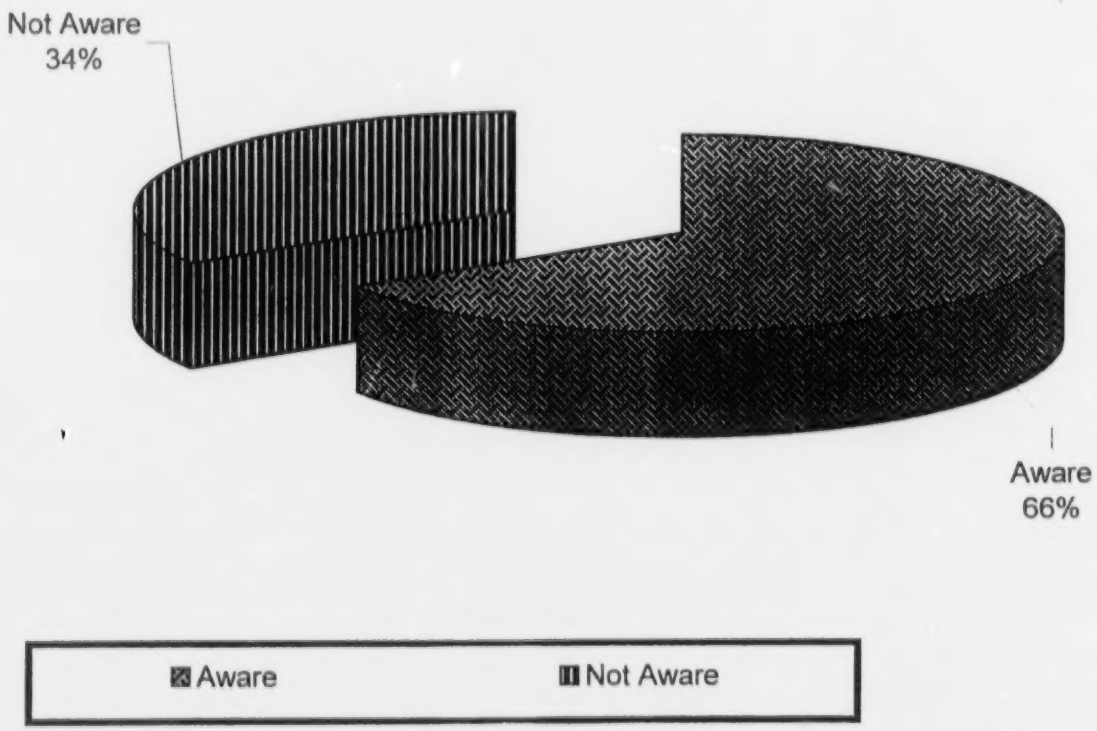

Figure 13. Regular Education Teachers' Awareness About Environmental Adapatations (N=50)

Research Question 4

Do regular education teachers have adequate knowledge about the disability specific characteristics and health care needs of students with physical disabilities?

Analysis of data indicates that regular education teachers do not have adequate knowledge about the disability specific characteristics and health care needs of children with physical disabilities. Approximately 96% of the participating teachers were undecided about what hydrocephalus is. Further, about 98% of the regular education teachers were not aware that generally spina bifida is accompanied by double incontinence. And, that students with spina bifida have to self-catheterize even during their day at school. An overwhelming majority of participating teachers, that is, 97% believed that all children with cerebral palsy have mental retardation. Further, 63 % of the regular education teachers reported that they had never heard of Duchenne Dystrophy.

Research Question 5

Do regular education teachers have adequate knowledge about the social needs of students who have physical disabilities?

Approximately, 72% of the regular education teachers showed awareness that students with physical disabilities need help in creating and maintaining friendships. Further, 66% of the teachers indicated their awareness that many students with physical disabilities need specifically tailored clothes. Seventy eight percent of the teachers knew that student with disabilities should be allowed extended time to complete learning tasks. Sixty eight percent of the participating teachers believed that students with physical disabilities should be allowed extra time in the school to move from one location to another.

Research Question 6

On the average, how many clock hours of in-service training do regular education teachers receive to integrate students with physical disabilities in their classrooms?

To address this question, the total number of clock hours of in-service, received by participating regular education teachers was added and then the mean was calculated. The mean of in-service training for all of the teachers in the sample is 1.9 clock hours (X=1.9). Surprisingly, 66% of the participating teachers reported that they had not received any in-service training for the inclusion of students with disabilities in their classrooms.

Limitations of the Study

The findings of this investigation should be interpreted with caution because of the following reasons. First, the study was conducted with a sample of convenience. The sample may not be representative of the larger population of regular elementary and secondary teachers. Second, the findings of this study are based on self-reported data. Self-reported data tend to have lower reliability. Third, the sample represents a small section of Western New York. Because of various geographical, programmatic, and administrative differences, the participating teachers may differ from the teachers of other geographical areas and other school districts.

Despite some of the caveats mentioned, the present investigation is unique that it has looked at the professional readiness of regular education teachers as it relates to the inclusion of students with physical disabilities in their classrooms. Evidently, the research community has given abundant attention to high incidence disabilities like learning disabilities (LD), educable mental retardation (EMR) and emotional/behavior disorders (ED/BD). And, there is considerable literature that addresses the inclusion of

students with mild disabilities in the regular classroom. However, we still need to respond more emphatically to the inclusion of students with physical disabilities in the regular classroom despite their low incidence.

One way to assure successful inclusion of students with physical disabilities in the regular classroom is to prepare the regular education teachers. The findings of this study point to this need. Further, the findings also indicate the areas in which in-service can be designed and delivered. And, regular education teachers can be better prepared for the inclusion of students with physical disabilities.

Implications for Practice

As stated earlier, only 40% of the regular education teachers reported that they feel competent and adequately prepared to include students with disabilities in their classrooms. Further, findings of the present investigation indicate that more than 90% of the regular education teachers do not have adequate knowledge about the specific characteristics and health care needs of students with various physical disabilities. So, this is one area that needs to be targeted. Teacher in-service programs could provide the regular education teachers basic information about the characteristics of some of the more common disabilities such as spina bifida, cerebral palsy, osteogenesis imperfecta & Duchenne Dystrophy.

Further, only 66% of the regular education teachers indicated that they would need to make environmental adaptations to accommodate their learners with physical disabilities. This in another area for teacher in-service. Every regular education teacher needs to know the absolutely critical need of environmental adaptations (Bigge, Best, & Heller, 2001; Heller et al. 1998; Mastropieri & Scruggs, 2000). The regular education

teachers could be trained to develop ecological inventories or be informed about the inventories that are already available (e.g., Wadsworth & Knight, 1999).

Further, findings of this study indicate that on the average, regular education teachers receive 1.9 clock hours of in-service per academic year related to the inclusion of students with disabilities in their classrooms. The regular education teachers certainly need more training than that to update their knowledge and skills for the successful inclusion of students with disabilities (Salend, 2001). Also, as shown in Figure 14, 66% of the participating teachers reported that they had not received any in-service for the inclusion of the students with disabilities in their classrooms. Consider below the comments of some of the participating teachers:

"I feel I do not know enough about physical disabilities. I would be willing to learn just about any thing".

"I am interested in receiving in-service on spina bifida and cerebral palsy"

" I need information on various disabilities. I know a little about cerebral palsy, but very little about spina bifida"

" I need... (to know) specific classroom strategies and materials needed in order to more effectively teach students with CP".

"All physical disabilities and adaptive measures, I would like to know"

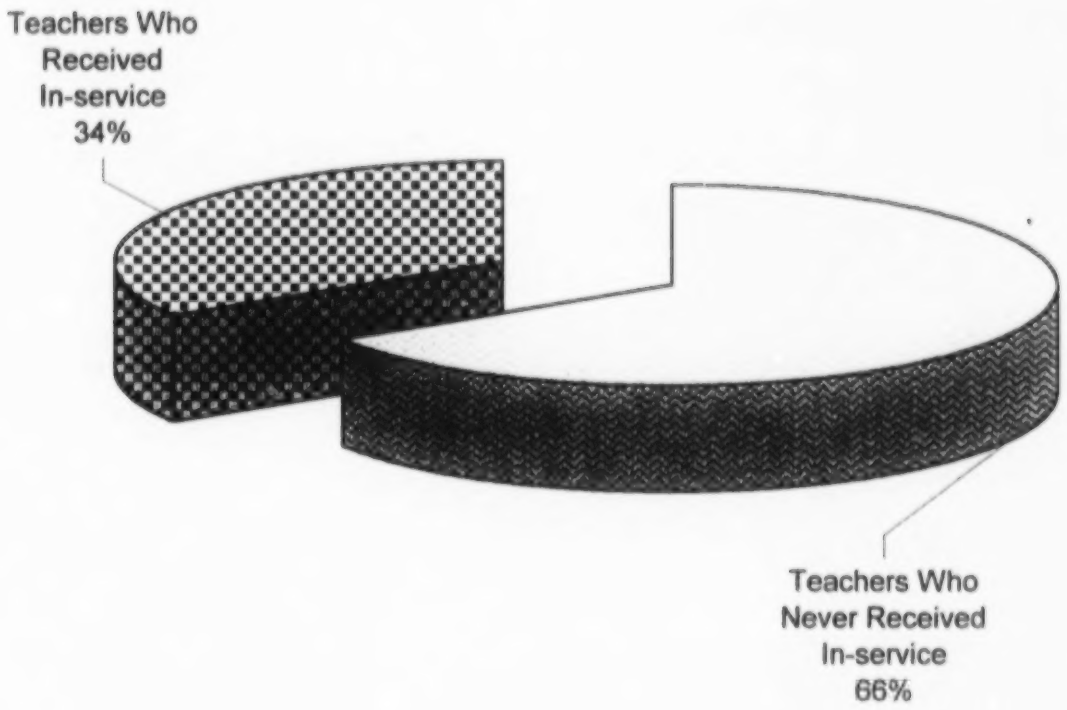

Figure 14. Proportion of Regular Education Teachers Who Received Inservice (N=50)

" I would be interested in in-sevice in all the areas mentioned in this survey. I feel I do not know much information about physical disabilities"

"Any training on physical disabilities would be welcome"

"I would like information in the area of disability of the student I will have".

Lastly, regular education teachers need to be made aware of how different cultures view physical disabilities. And, how for some cultures the etiology of physical disabilities contains a mythical element (Seligman, 1991; Singh, 2000).

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